AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A polarizer array which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, [[andz]] and z, wherein the multilayer structure is divided into at least three regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes repeated in one direction defined in each region on the x-y plane, and, with respect to light being incident on the x-y plane in a perpendicular or oblique direction, only a polarized light parallel or perpendicular to the concave and convex shape in each region is transmitted.

2. (Original): The polarizer array according to claim 1, wherein repeating directions of the one-dimensional periodic concave and convex shapes are different from each other by 45° or less in the at least three regions.

3. (Previously Presented): The polarizer array according to claim 1, wherein the multilayer structure has at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 0° to an x axis, at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 45° to the x axis, and at least one region in which the repeating direction of the one-dimensional periodic concave and convex shapes is set at 90° to the x axis.

4. (Original): A polarization analyzer comprising: the polarizer array according to any one of claims 1 to 3 and a light-receiving array which can independently receive light transmitted through the regions.

5. (Previously Presented): The polarization analyzer according to claim 4, wherein a quarter waveplate is arranged in at least one region of the polarizer array such that the quarter waveplate serves as a common optical path on a light incident side.

6. (Original): A waveplate which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, and z, wherein the multilayer structure is divided into at least two regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes parallel to the x-axis direction in at least one of the regions, each layer is flat in at least one of the other regions, and a phase difference between orthogonal polarized light is given to light which is incident in a direction unparallel to the substrate and which is transmitted through the region having the one-dimensional periodic concave and convex shapes.

7. (Previously Presented): The polarization analyzer according to claim 4, wherein a waveplate operating as a quarter waveplate is arranged in at least one region of the polarizer array such that the waveplate serves as a common optical path on a light incident side, wherein the waveplate which has a multilayer structure in which at least two transparent materials are alternately laminated in a z direction on one substrate parallel to an x-y plane in an orthogonal coordinate system x, y, and z, wherein the multilayer structure is divided into at least two regions in the x-y plane, each layer has one-dimensional periodic concave and convex shapes parallel to

the x-axis direction in at least one of the regions, each layer is flat in at least one of the other regions, and a phase difference between orthogonal polarized light is given to light which is incident in a direction unparallel to the substrate and which is transmitted through the region having the one-dimensional periodic concave and convex shapes.

8. (Currently amended): The polarization analyzer according to claim 4,[[,]] wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

9. (Currently amended): A polarization stabilizer comprising: the polarization analyzer according to claim 4[[,]]; a means for splitting a light beam; and a means for controlling polarization.

10. (Currently amended): A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 4[[,]]; and a means for being able to give a variable phase difference between orthogonal polarization modes.

11. (Previously Presented): The polarization analyzer according to claim 5 wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

12. (Previously Presented): The polarization analyzer according to claim 7 wherein the light-receiving device array is any one of a photodetector, a CCD, and an image pickup tube.

13. (Previously Presented): A polarization stabilizer comprising: the polarization analyzer according to claim 5; a means for splitting a light beam; and a means for controlling polarization.

14. (Previously Presented): A polarization stabilizer comprising: the polarization analyzer according to claim7; a means for splitting a light beam; and a means for controlling polarization.

15. (Previously Presented): A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 5; and a means for being able to give a variable phase difference between orthogonal polarization modes.

16. (Previously Presented): A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 7; and a means for being able to give a variable phase difference between orthogonal polarization modes.

17. (Previously Presented): A polarization mode dispersion compensator comprising: the polarization analyzer according to claim 8; and a means for being able to give a variable phase difference between orthogonal polarization modes.